

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-112. (Canceled)

113. (Previously presented) A vector comprising:

- (a) a polynucleotide encoding an amplifiable selectable marker;
- (b) a polynucleotide encoding a green fluorescent protein (GFP); and
- (c) a polynucleotide encoding a desired product, wherein the polynucleotide encoding the desired product is operably linked to a promoter, and wherein the polynucleotide encoding the desired product and the promoter are (i) operably linked to the polynucleotide encoding the amplifiable selectable marker, or (ii) operably linked to the polynucleotide encoding the GFP, wherein the vector further comprises 3' of the promoter: an intron defined by a 5' splice donor site and a 3' splice acceptor site providing a splicing efficiency of at least 95%, and an IRES, wherein the polynucleotide encoding the desired product is positioned between the intron and the IRES wherein the polynucleotide encoding the amplifiable selectable marker is positioned in the intron and the polynucleotide encoding the GFP is positioned 3' of the IRES, and wherein the polynucleotide encoding the amplifiable selectable marker is operably linked to the promoter.

114. (Previously presented) A vector comprising:

- (a) a polynucleotide encoding an amplifiable selectable marker;
- (b) a polynucleotide encoding a green fluorescent protein (GFP); and
- (c) a polynucleotide encoding a desired product, wherein the polynucleotide encoding the desired product is operably linked to a promoter, and wherein the polynucleotide encoding the desired product and the promoter are (i) operably linked to the polynucleotide encoding the amplifiable selectable marker, or (ii) operably linked to the polynucleotide encoding the GFP, wherein the vector further comprises 3' of the promoter: an intron defined by a 5' splice donor site and a 3' splice acceptor site providing a splicing efficiency of at least 95%, and an IRES, wherein the polynucleotide encoding the desired product is positioned between the intron and the IRES wherein the polynucleotide encoding the GFP is positioned in the intron and the

polynucleotide encoding the amplifiable selectable marker is positioned 3' of the IRES, and wherein the polynucleotide encoding the GFP is operably linked to the promoter.

115. (Previously presented) A vector comprising: a first transcription unit comprising a first promoter, an intron positioned 3' to the first promoter, and a first polynucleotide encoding a first desired product positioned 3' to the intron; and a second transcription unit comprising a second promoter and an intron positioned 3' of the second promoter; wherein the intron in the first transcription unit is the first intron, and the intron in the second transcription unit is the second intron, and wherein each of the first and the second introns is defined by a 5' splice donor site and a 3' splice acceptor site providing a splicing efficiency of at least 95%, wherein the vector further comprises a polynucleotide encoding an amplifiable selectable marker and a polynucleotide encoding a fluorescent protein, and wherein the first polynucleotide encoding the first desired product and the first promoter are (i) operably linked to the polynucleotide encoding the amplifiable selectable marker, or (ii) operably linked to the polynucleotide encoding the fluorescent protein.

116. (Previously presented) The vector of claim 115, wherein the fluorescent protein is a GFP.

117. (Currently amended) The vector of claim 116, wherein the amplifiable selectable marker is selected from the group [[of]] consisting of dihydrofolate reductase (DHFR) and glutamine synthetase.

118. (Previously presented) The vector of claim 117, wherein the amplifiable selectable marker is DHFR.

119. (Previously presented) The vector of claim 116, wherein the GFP is a mutant GFP.

120. (Previously presented) The vector of claim 119, wherein the mutant GFP exhibits a higher fluorescence intensity than the wild-type GFP.

121. (Previously presented) The vector of claim 119, wherein the mutant GFP is GFP-S65T having a serine to threonine substitution in amino acid 65 of the wild-type GFP of *Aequorea victoria*.

122. (Previously presented) The vector of claim 116, wherein the polynucleotide encoding the amplifiable selectable marker is positioned in the first intron, wherein the polynucleotide encoding the amplifiable selectable marker and the polynucleotide encoding the desired product are both operably linked to the first promoter, and wherein the polynucleotide encoding the GFP is positioned 3' of the second intron and operably linked to the second promoter.

123. (Previously presented) The vector of claim 116, wherein the second transcription unit further comprises a second polynucleotide encoding a second desired product positioned 3' of the second intron, and wherein the second polynucleotide encoding the second desired product is operably linked to the second promoter.

124. (Previously presented) The vector of claim 123, wherein the polynucleotide encoding the amplifiable selectable marker is positioned in the first intron and operably linked to the first promoter, and the polynucleotide encoding the GFP is positioned in the second intron and operably linked to the second promoter.

125. (Previously presented) The vector of claim 123, wherein the polynucleotide encoding the GFP is positioned in the first intron and operably linked to the first promoter, and the polynucleotide encoding the amplifiable selectable marker is positioned in the second intron and operably linked to the second promoter.

126. (Previously presented) The vector of claim 123, further comprising an IRES positioned 3' of the second polynucleotide encoding the second desired product.

127. (Previously presented) The vector of claim 126, wherein the polynucleotide encoding the amplifiable selectable marker is positioned in the first intron and operably linked to the first

promoter, and the polynucleotide encoding the GFP is positioned 3' of the IRES and operably linked to the second promoter.

128-129. (Canceled)

129. (Previously presented) The vector of claim 128, wherein the second transcription unit further comprises a polynucleotide encoding a selectable marker positioned in the second intron and operably linked to the second promoter.

130. (Previously presented) The vector of claim 123, wherein the first transcription unit further comprises an IRES positioned 3' of the first polynucleotide encoding the first desired product.

131. (Canceled)

132. (Previously presented) The vector of claim 124, wherein the second transcription unit further comprises a polynucleotide encoding a selectable marker positioned in the second intron and operably linked to the second promoter.

133. (Previously presented) The vector of claim 123, wherein the second transcription unit further comprises an IRES positioned 3' of the second polynucleotide encoding the second desired product, wherein the IRES in the first transcription unit is the first IRES, and the IRES in the second transcription unit is the second IRES.

134. (Previously presented) The vector of claim 133, wherein the polynucleotide encoding the amplifiable selectable marker is positioned 3' of the first IRES and operably linked to the first promoter, and polynucleotide encoding the GFP is positioned 3' of the second IRES and operably linked to the second promoter.

135. (Previously presented). The vector of claim 123, wherein the first promoter and the second promoter are the same type of promoter.

136. (Previously presented) The vector of claim 135, wherein the first promoter and the second promoter are the CMV or the SV40 promoter.

137. (Previously presented) The vector of claim 123, wherein at least one of the promoters is inducible.

138-139. (Canceled)

140. (Previously presented) The vector of claim 123, wherein the first polynucleotide encoding the first desired product encodes an immunoglobulin heavy chain and the second polynucleotide encoding the second desired product encodes an immunoglobulin light chain.

141. (Previously presented) The vector of claim 123, wherein the first polynucleotide encoding the first desired product encodes one polypeptide chain of a multichain receptor, and the second polynucleotide encoding the second desired product encodes a second polypeptide chain of the receptor.

142. (Previously presented) The vector of claim 116 that replicates in a eukaryotic host cell.

143. (Previously presented) A host cell comprising a vector selected from the group consisting of:

(a) a vector of claim 113; (b) a vector of claim 114; and (c) a vector of claim 115.

144. (Previously presented) The host cell of claim 143, wherein the cell is a mammalian cell.

145. (Previously presented) The host cell of claim 144, wherein the mammalian cell is a Chinese Hamster Ovary (CHO) cell.

146. (Previously presented) The host cell of claim 145, wherein the amplifiable selectable marker is DHFR and the CHO cell has a DHFR-minus phenotype.

147. (Previously presented) The host cell of claim 145, wherein the desired product is selected from the group consisting of neuronotrophin-3, deoxyribonuclease, vascular endothelial growth factor, immunoglobulin and Her2 receptor.

148. (Previously presented) A kit comprising a container containing a vector selected from the group consisting of (a) a vector of claim 113; (b) a vector of claim 114; and (c) a vector of claim 115.

149. (Previously presented) A method of producing a desired product comprising culturing a suitable eukaryotic cell comprising a vector selected from the group consisting of (a) a vector of claim 113; (b) a vector of claim 114; and (c) a vector of claim 115, under conditions so as to express the desired product, and recovering the desired product.

150. (Previously presented) The method of claim 149 wherein the desired product is recovered from the culture medium.

151. (Currently amended) A method of obtaining a cell expressing a desired product, the method comprising:

a) introducing into a population of eukaryotic cells a vector comprising: (i) a polynucleotide encoding an amplifiable selectable marker; (ii) a polynucleotide encoding a green fluorescent protein (GFP); and (iii) a polynucleotide encoding a desired product, wherein the desired product comprises a polypeptide, wherein the polynucleotide encoding the desired product is operably linked in cis to ~~[[a]]~~ an upstream promoter, and wherein the polynucleotide encoding the desired product and the promoter are (1) operably linked in cis to the polynucleotide encoding the amplifiable selectable marker, or (2) operably linked in cis to the polynucleotide encoding the GFP; ~~and~~

b) isolating the cells of step a) that express the GFP and the amplifiable selectable marker, wherein expression of the GFP and the amplifiable selectable marker is indicative of the cell also expressing the desired product; and
recovering said desired product from said cells.

152. (Currently amended) The method of claim 151, wherein the vector ~~is a vector of claim 115~~ comprises: a first transcription unit comprising a first promoter, an intron positioned 3' to the first promoter, and a first polynucleotide encoding a first desired product positioned 3' to the intron; and a second transcription unit comprising a second promoter and an intron positioned 3' of the second promoter; wherein the intron in the first transcription unit is the first intron, and the intron in the second transcription unit is the second intron, and wherein each of the first and the second introns is defined by a 5' splice donor site and a 3' splice acceptor site providing a splicing efficiency of at least 95%, wherein the vector further comprises a polynucleotide encoding an amplifiable selectable marker and a polynucleotide encoding a fluorescent protein, and wherein the first polynucleotide encoding the first desired product and the first promoter are (i) operably linked to the polynucleotide encoding the amplifiable selectable marker, or (ii) operably linked to the polynucleotide encoding the fluorescent protein.

153. (Previously presented) The method of claim 152, wherein the step of isolating cells expressing the GFP comprises sorting for and cloning the brightest 1%-10% of fluorescent cells, wherein the sorting and cloning are performed using a fluorescence activated cell sorter.

154. (Previously presented) The method of claim 153, wherein the cells are subjected to two or more rounds of sorting, wherein the cells are cultured for a period of time between each round.

155. (Previously presented) The method of claim 154, wherein the cells are cultured for about two weeks between each round of sorting.

156. (Previously presented) The method of claim 155, wherein the cells are cultured in selection medium comprising an amplifying agent.

157. (Previously presented) The method of claim 153, wherein the brightest 1%-10% of fluorescent cells are cultured in selection medium comprising an amplifying agent.

158. (Previously presented) The method of claim 156 or 157, wherein the amplifiable selectable marker is DHFR and the amplifying agent is methotrexate.

159. (Previously presented) The method of claim 157, further comprising analyzing the cells after culture with amplifying agent, for expression of the desired product.

160. (Previously presented) The method of claim 159, wherein the cells are analyzed for RNA encoding the desired product by RT-PCR, wherein the amount of RNA is indicative of the level of production of the desired product.

161-162. (Canceled)

163. (Currently amended) A method of obtaining a cell expressing a desired product, the method comprising:

a) introducing into a population of eukaryotic cells a vector comprising: i) a polynucleotide encoding an amplifiable selectable marker; ii) a polynucleotide encoding a fluorescent protein; and iii) a polynucleotide encoding a desired product, wherein the desired product comprises a polypeptide, wherein the polynucleotide encoding the desired product is operably linked in cis to ~~[[a]]~~ an upstream promoter, and wherein the polynucleotide encoding the desired product and the promoter are (1) operably linked in cis to the polynucleotide encoding the amplifiable selectable marker, or (2) operably linked in cis to the polynucleotide encoding the fluorescent protein; ~~and~~

b) isolating the cells of step a) that express the fluorescent protein, wherein expression of the fluorescent protein is indicative of the cell also expressing the desired product; and
recovering said desired product from said cells.

164. (Currently amended) A method of obtaining a cell expressing a desired product, the method comprising:

introducing into a population of eukaryotic cells a vector comprising: (a) a polynucleotide encoding an amplifiable selectable marker; (b) a polynucleotide encoding a green fluorescent protein (GFP); and (c) a polynucleotide encoding a desired product, wherein the desired product comprises a polypeptide, wherein the polynucleotide encoding the desired product is operably linked in cis to a promoter, wherein said promoter is upstream of said polynucleotide encoding the desired product, and wherein the polynucleotide encoding the desired product and the promoter are (i) operably linked to in cis the polynucleotide encoding the amplifiable selectable marker, or (ii) operably linked in cis to the polynucleotide encoding the GFP; ~~and~~

isolating the cells of step (a) that express the fluorescent protein, wherein expression of the fluorescent protein is indicative of the cell also expressing the desired product; and

recovering said desired product from said cells.